

In the Claims:

Please amend the claims as follows:

1. (Cancelled)
2. (Previously Presented) The system of claim 5, wherein:
the application service configuration information references a software object for processing information associated with the electrical signal, and
the self-configuring application services system further comprises the software object.
3. (Original) The system of claim 2, further comprising an object database storing a version of the software object.
4. (Original) The system of claim 3, wherein the object database forms a portion of an Object Database Management System.
5. (Currently Amended) A system comprising:
a hardware subsystem that includes at least one component adapted to carry an electrical signal associated with one of a sensing operation and a control operation;
an application database storing application service configuration information that corresponds to a manner of processing information associated with the electrical signal;
a self-configuring application services system comprising an application services system configuration module coupled to the hardware subsystem and coupled to retrieve application service configuration information from the application database, the self-configuring application services system operable to configure itself

for communication with the hardware subsystem using the application service configuration information, this configuration including associating an event code with the electrical signal;

a signal database storing interface communications configuration information corresponding to a manner of managing communication between the hardware subsystem and the self-configuring application services system via a plurality of communication protocols; and

a self-configuring interface system coupled to the hardware subsystem and the application services system and comprising an interface system configuration module ~~coupled~~ operable after execution of an initialization or update routine on the signal database to retrieve interface configuration information from the signal database and to utilizes this interface configuration information to facilitate communication between the hardware subsystem and the self-configuring application services system via a selected one of the plurality of communication protocols.

6. (Original) The system of claim 5, wherein said interface configuration information further references a software object that corresponds to a manner of processing information associated with the electrical signal.

7. (Previously Presented) The system of claim 6, wherein the self-configuring interface system further comprises the software object.

8. (Original) The system of claim 7, further comprising an object database storing a version of the software object.

9. (Original) The system of claim 8, wherein the object database forms a portion of an Object Database Management System.

10. (Previously Presented) The system of claim 5, wherein the self-configuring interface system communicates with the hardware subsystem in accordance with the electrical signal, and communicates with the self-configuring application services system in accordance with the event code that corresponds to the electrical signal.

11. (Previously Presented) The system of claim 7, wherein the interface system communicates with the hardware subsystem in accordance with the electrical signal, and communicates with the software object and the application services system in accordance with the event code that corresponds to the electrical signal.

12. (Currently Amended) A system comprising:

- a hardware subsystem that includes a set of components adapted to carry electrical signals, each electrical signal associated with one from the group of a sensing operation and a control operation;
- an application database referencing a first software object that corresponds to a manner of processing information associated with an electrical signal;
- a self-configuring application services system comprising:
 - application services system configuration module coupled to the hardware subsystem and coupled to retrieve application service configuration information from the application database; and
 - the first software object;
 - a signal database storing interface communications configuration information corresponding to a manner of managing communication between the hardware subsystem and the self-configuring application services system via a plurality of communication protocols and referencing a second software object that

corresponds to a manner of processing information associated with an electrical signal and associates an event code with the electrical signal; and

a self-configuring interface system coupled to the hardware subsystem and the self-configuring application services system and comprising:

an interface system configuration module ~~coupled~~ operable to retrieve updated interface configuration information from the signal database subsequent to an update of the signal database and to facilitate communication between the hardware subsystem and the self-configuring application services system via a plurality of communication protocols; and

the second software object.

13. (Original) The system of claim 12, further comprising an object database storing one from the group of the first software object and the second software object.

14. (Original) The system of claim 13, wherein the object database forms a portion of an Object Database Management System.

15. (Previously Presented) The system of claim 12, further comprising a network coupled to the self-configuring application services system and the self-configuring interface system.

16. (Original) The system of claim 15, wherein the network comprises one from the group of a Local Area Network, a Wide Area Network, and the Internet.

17. (Previously Presented) The system of claim 12, wherein the self-configuring interface system communicates with the hardware subsystem in

accordance with the electrical signal, and communicates with the self-configuring application services system in accordance with an event code that corresponds to the electrical signal.

18. (Previously Presented) The system of claim 12, wherein the self-configuring interface system communicates with the hardware subsystem in accordance with the electrical signal, and communicates with the second software object and the self-configuring application services system in accordance with an event code that corresponds to the electrical signal.

19. (Previously Presented) The system of claim 12, wherein the self-configuring interface system further comprises a signal exchange module coupled to the hardware subsystem, the signal exchange module comprising a storage element for storing a hardware signal corresponding to an electrical signal.

20. (Previously Presented) The system of claim 12, wherein the self-configuring interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module comprising a storage element for storing a hardware signal corresponding to an electrical signal; and

an event coding-decoding module coupled to map between an electrical signal and an event code.

21. (Previously Presented) The system of claim 12, wherein the self-configuring interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code; and

an interprocess communication module coupled to manage event-based communication with the self-configuring application services system.

22. (Previously Presented) The system of claim 12, wherein the self-configuring interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code; and

an interprocess communication module coupled to manage event-based communication with the self-configuring application services system and the second software object.

23-28. (Cancelled)

29. (Currently Amended) In a system comprising a hardware subsystem that includes a set of components adapted to carry electrical signals, each electrical signal associated with one of a sensing operation and a control operation, a method for processing electrical signals comprising:

the system retrieving application service configuration information that associates a first set of software objects with at least one electrical signal and includes communications protocol information;

the system retrieving the first set of software objects in accordance with the application service configuration information;

responsive to a change in the components in the hardware subsystem,
the system updating application service configuration information;

the system utilizing the updated application service configuration
information in determining a required communications protocol from a plurality of
communication protocols for the changed components in the hardware subsystem;
and

selecting communications protocol interface configuration information
based on said determining;

the system retrieving the selected communications interface
configuration information that corresponds to the changed components in the
hardware subsystem and which associates a second set of software objects with at
least one electrical signal; and

the system automatically generating a hardware interface for managing
communication between a software object and the hardware subsystem in accordance
with the communications interface configuration information, the interface including
associating an event code with each electrical signal.

30. (Original) The method of claim 29, wherein the first and second
sets of software objects are retrieved from an object database.

31. (Original) The method of claim 29, wherein the first and second
sets of software objects are retrieved from an Object Database Management System.

32. (Previously Presented) The method of claim 29, further
comprising the system establishing mappings between the electrical signals and the
corresponding event codes for each electrical signal associated with a software object
within the first set of software objects.

33. (Previously Presented) The method of claim 32, further comprising:

the system_managing communication between the hardware subsystem and the self-configuring interface system in accordance with the electrical signals; and

the system_managing communication between the self-configuring interface system and the first set of software objects in accordance with the set of event codes.

34. (Previously Presented) The method of claim 29, further comprising the system_establishing mappings between a set of electrical signals and a set of event codes for those electrical signals associated with software objects within the first and second sets of software objects.

35. (Previously Presented) The method of claim 34, further comprising:

the system_managing communication between the hardware subsystem and the interface system in accordance with the electrical signals; and

the system managing communication between the self-configuring interface system, the first set of software objects, and the second set of software objects in accordance with the corresponding event codes.

36. (Previously Presented) The method of claim 29, further comprising:

the system_executing program instructions associated with the first set of software objects within a first computer system; and

the system_executing program instructions associated with the second set of software objects within a second computer system.

37. (Previously Presented) The method of claim 36, wherein the second computer system includes the hardware interface module.